

H Palmer, Life Preserver.

N^o 21,776.

Patented Oct 12, 1858.

Fig: 1.

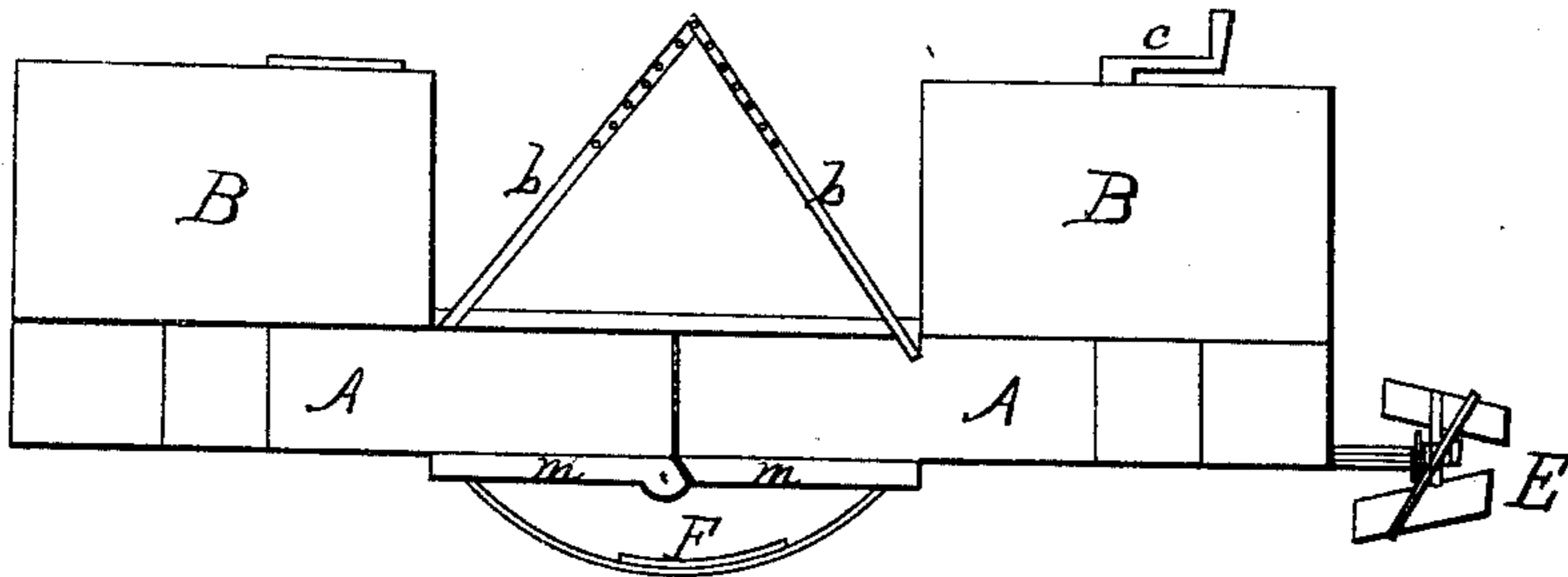


Fig: 2.

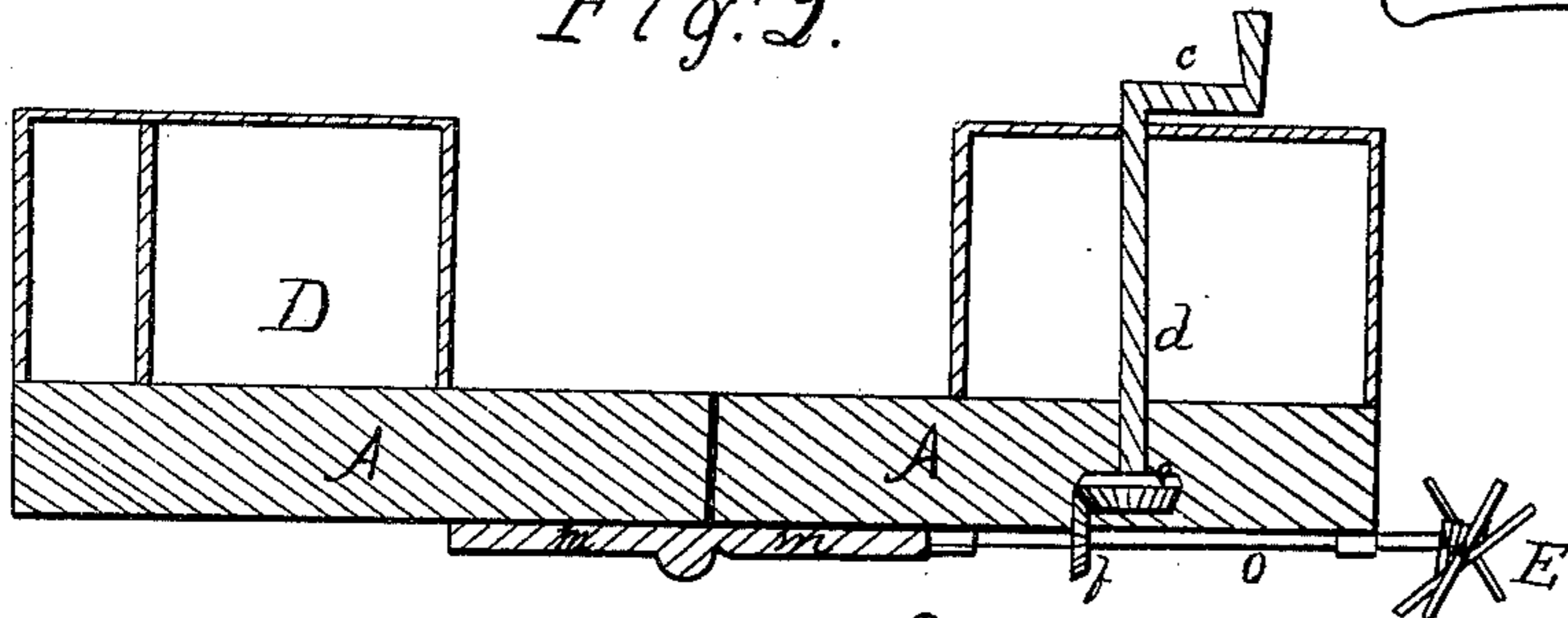


Fig: 3.

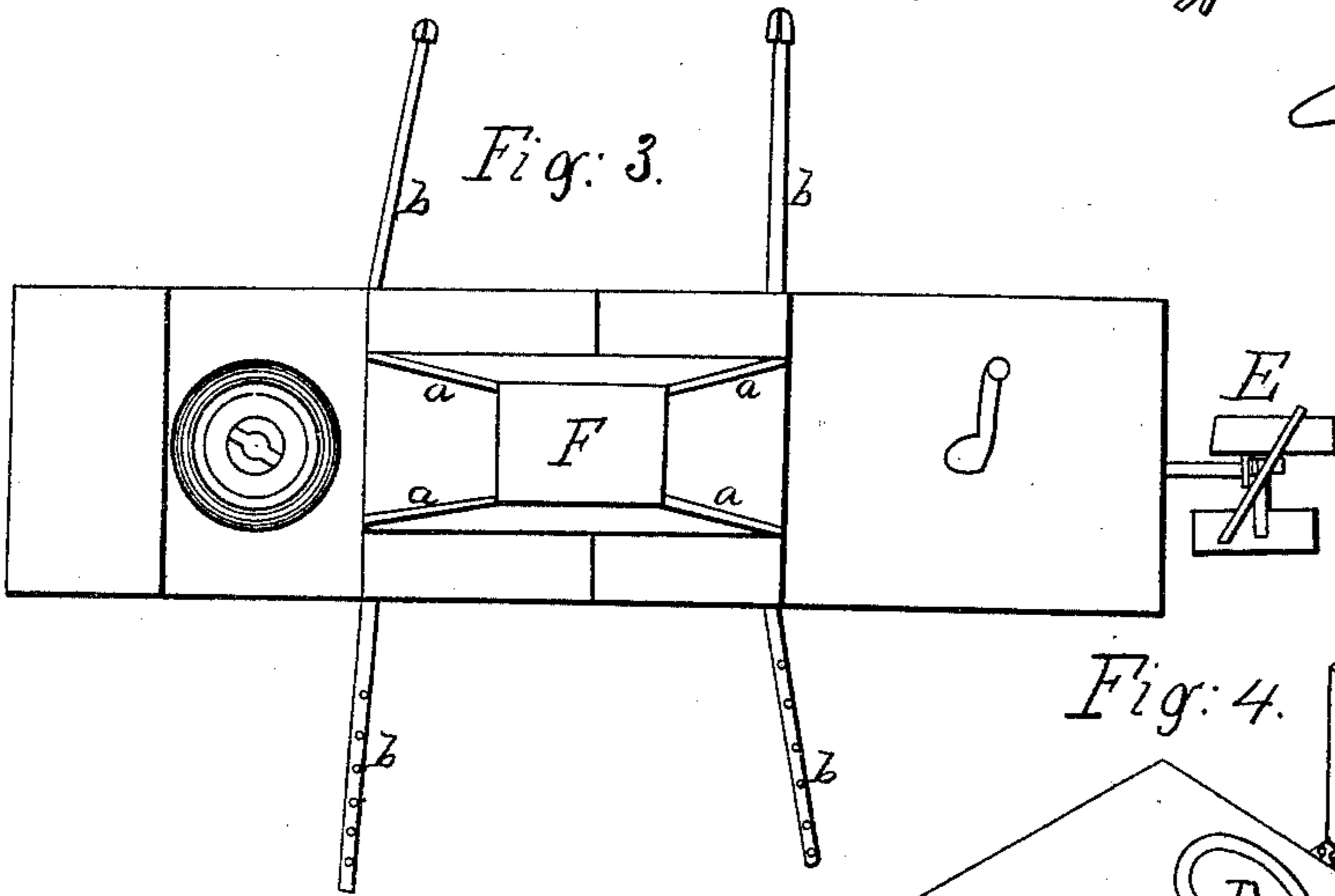


Fig: 4.

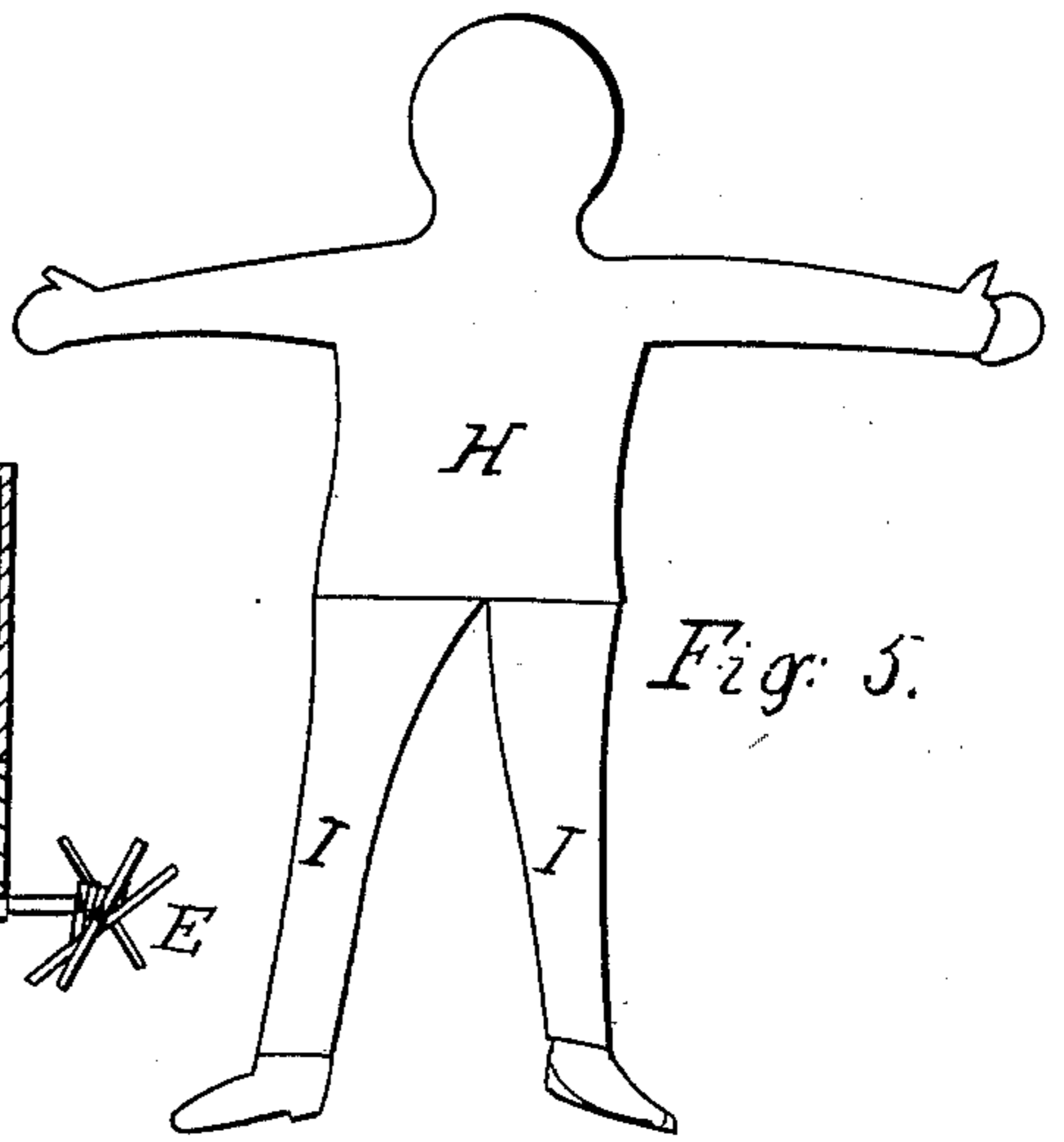
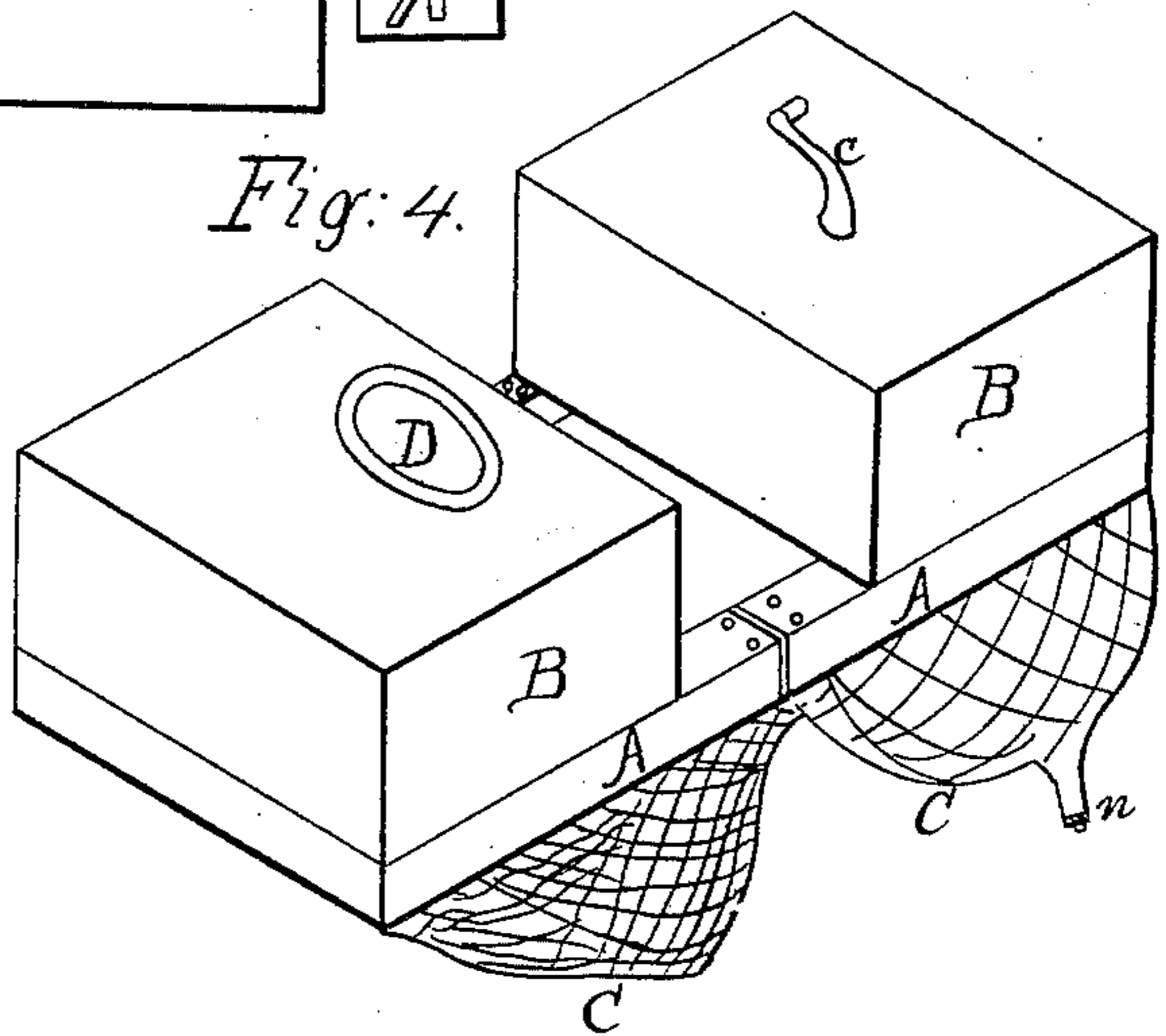


Fig: 5.

UNITED STATES PATENT OFFICE.

HIRAM PALMER, OF AUGUSTA, MICHIGAN.

IMPROVED LIFE-PRESERVER.

Specification forming part of Letters Patent No. 21,776, dated October 12, 1858.

To all whom it may concern:

Be it known that I, HIRAM PALMER, of Augusta, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Life-Preservers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the employment of the preserver constructed, essentially, in the manner hereinafter described.

In the annexed drawings, Figure 1 is a side view of the preserver. Fig. 2 is a section view. Fig. 3 is a plan view. Fig. 4 is a perspective view. Fig. 5 is a view of the garments that may be worn by the user.

In the several figures, A A represent two portions of the frame of the preserver, which are connected together by hinges *m m*.

B B represent sheet-metal chambers which are secured to the frame A A. In one of these chambers is a provision-chamber marked D. This provision-chamber is made water-tight for the preservation of articles of food to be placed in it.

C C are air-chambers which are made of india-rubber goods, so constructed that they will be air-tight. They are filled with air which may be retained for the use of the person using the preserver when necessary.

n is a stop-cock communicating with the air-chambers C C, and is used for filling the chambers with air and also for breathing through when desirable to use the air in said chambers.

d is a rod or shaft which is provided with a crank *c* at one end and a bevel-wheel *e* at the other. This wheel *e* connects with a bevel-wheel *b* on shaft *o*. To the other end of shaft *o* is a propeller E. By turning the crank *c* the propeller is set in motion, and thus motion is given to the preserver.

F is a seat upon which the operator sits, and *a a a a* are straps which secure this seat to the frame A A.

b b b b are straps which pass over the operator when seated and secure him firmly in his seat, so that he cannot be removed by the violence of the waves.

H and I I represent a suit of india-rubber clothes which the operator may use, and thus prevent his becoming wet and benumbed with the cold sea-water.

These preservers may be made sixteen inches in length when folded, so that when unfolded and ready for use they will be double that length. They fold up by means of the hinge at the center of the frame, and, occupying a very small space, may be easily packed away. They may not necessarily occupy more than sixteen inches square of space, and any ship may carry one for each passenger, or each passenger may carry one for his own benefit.

In case of need the preserver should be unfolded and the joint stiffened by means of a pin which passes into a cavity in the hinge. The passenger may then fill the provision-chamber with suitable provisions and secure the top of the chamber on firmly. He then sits upon the seat F, straps himself in by means of straps *b b b b*, and then by using the crank *c* he may propel himself with considerable rapidity through the water. He may then fill chambers C C with air and breathe this air through the cock *n* when immersed beneath the water by the waves rolling over him.

It is very evident that should a ship be lost at sea and her passengers are provided with this preserver and a suit of clothes of rubber and a good supply of provisions they may survive many days and either make their way to some land or to some vessel, where they may be rescued.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the folding frame A, the metal chambers B B, the provision-chamber D within said chambers B B, the flexible air-chambers C C, and the propeller E, the whole being combined and operated in the manner and for the purpose herein specified.

HIRAM PALMER.

Witnesses:

JOHN WOODWARD,
CHESTER PALMER.